Robertshaw Millivolt Troubleshooting Guide Gas Products

1) Safety Magnet Testing

2) Thermopile Millivolt Check

3) Circuit Millivolt Check

4) Valve Operating Head Test

REGENCY
FIREPLACE PRODUCTS

Electromagnet power unit (EPU) testing

Set meter to Ohms for this test

To take an Ohms reading on a safety magnet, remove EPU wire from the valve.
Place one meter lead to the EPU wire spade and one to TP

Good reading is **0 to 13 Ohms**. If the reading is higher,magnet is defective therefore ***Change the Valve - Do not try to repair.***

Good Reading

Thermopile Millivolt Check

Symptom - Intermittent shutdown or main burner will not light with on/off switch.

Set meter to Volts DC / Millivolts

Place on lead to TP/TH & TP

Thermopile Output- ***MAIN BURNER OFF :*** 325 mv minimum required for system to operate consistently. If lower than 325 mv, ***change the thermopile.***

Thermopile Millivolt Check

Symptom - Intermittent shutdown or main burner will not light with on/off switch.

Thermopile Output- ***MAIN BURNER ON:*** 110 mv minimum required for system to operate consistently. If lower than 110 mv, conduct valve operating head test. If valve proves good, ***change the thermopile.***

Circuit Millivolt Check

Symptom - Intermittent shutdown or main burner will not light with on/off switch.

The Thermopile, energized by the pilot flame, generates sufficient power to operate the gas valve and on/off switch.

Voltage drop across the switch terminals ***Burner on:*** 35 mv or less.

Set meter to MV or Volts DC
Place one lead to TP/TH and place one lead to TH

*If higher than 35mv check connections and switch.

Valve Operating Head Test

- ***Symptom - Intermittent shutdown or main burner fails when burner switch or thermostat is turned on.***
- ***Before conducting this test, disconnect all leads from valve.***

Set meter to ***Ohms*** for this test.

One lead to TH/TP and one to TP

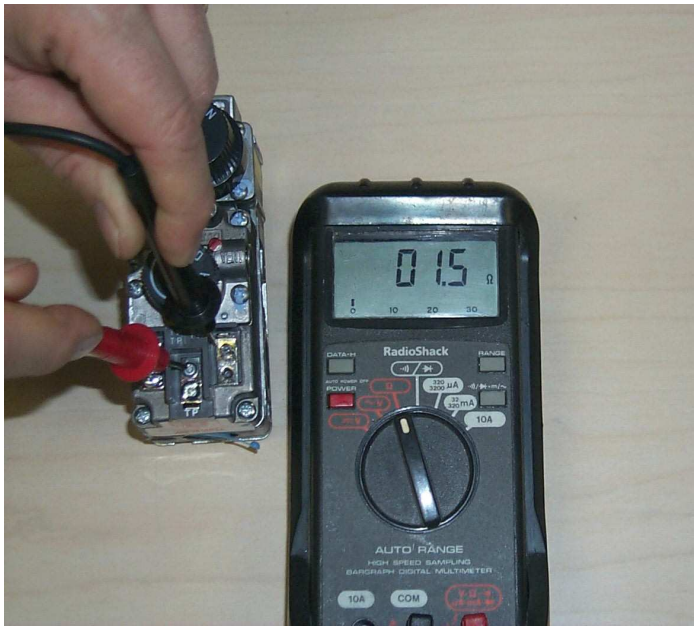
0 – 10.9 Ohms Good

Infinite ohms (bad)

One lead to TP and one to TH

1.5 – 1.7 Ohms Good

Infinite ohms (bad)



Circuit Millivolt Check

Symptom - Intermittent shutdown or main burner will not light with on/off switch.

The Thermopile, energized by the pilot flame, generates sufficient power to operate the gas valve and on/off switch.

Set meter to Ohms
Place one lead to each spade switch in ***on*** position

*If higher than 0.3 ohms replace switch